

Application No. 10/591,285
October 25, 2010
Reply to the Office Action dated June 25, 2010
Page 9 of 15

AMENDMENTS TO THE DRAWINGS:

The attached sheet of Drawings includes changes to Fig. 2. This sheet, which includes Fig. 2, replaces the original sheet including Fig. 2.

Attachment: One (1) Replacement Sheet.

REMARKS/ARGUMENTS

Claims 18-32 are pending in this application. By this Amendment, Applicant AMENDS the specification and the drawings, CANCELS claims 1-17, and ADDS claims 18-32.

Original claims 4, 13, 14, and 17 were withdrawn by the Examiner as allegedly being directed to non-elected inventions and species. Claims 21 and 32 substantially correspond to original claims 4 and 17. Accordingly, claims 21 and 32 should also be withdrawn as being directed to non-elected species. However, Applicant respectfully requests withdrawal of the election of species and allowance of claims 21 and 32 when generic claim 18 is allowed. Original claims 13 and 14 have been canceled as being directed to non-elected inventions. Applicant reserves the right to file a Divisional Application in order to pursue prosecution of non-elected claims 13 and 14.

Support for new claims 18-32 can be found in, for example, Applicant's originally filed claims 1-12 and 15-17. Specific support for the features recited in claim 18 will be addressed below.

The Examiner is reminded that in Information Disclosure Statements filed on October 23, 2006 and May 10, 2007, Applicant cited copending U.S. Patent Application Nos. 11/514,387; 11/514,386; 11/514,000; 11/513,609; 11/514,017; 11/513,537; 11/469,268; 11/469,310; 11/469,228; 11/469,252; 10/591,560; 10/591,559; and 10/591,284 to bring to the attention of the Examiner and have the Examiner consider the subject matter and claims of the copending U.S. Patent Application(s), the prior art references, Office Actions and responses to Office Actions made of record in the copending U.S. Patent Application(s). The Examiner is respectfully requested to update his/her review and consideration of the claims of the copending U.S. Patent Application(s), the prior art references, Office Actions and responses to Office Actions made of record in the copending U.S. Patent Application(s).

Applicant appreciates the Examiner's indication that claims 5, 8-10, and 12 would be allowable if amended to overcome the 35 U.S.C. § 112, second paragraph, rejection and to include all of the features of the base claim and any intervening claims.

Applicant appreciates the Examiner extending the courtesy of the telephone interview on October 21, 2010. During the telephone interview, Applicant's undersigned representative explained to the Examiner the differences between Applicant's claimed invention and the clutch devices disclosed by Cherry (U.S. 6,364,809) and Kondo et al. (U.S. 6,942,598), which will be explained in more detail below. The Examiner tentatively agreed that the combination of Cherry and Kondo et al. does not teach or suggest all of the features of Applicant's claimed invention.

The drawings were objected to for allegedly failing to show the claimed bias member, for allegedly failing to include reference character 105, and for designating the clutch actuator in Fig. 2 by reference characters 22 and 24. Applicant has amended the specification to clarify that the bias member, designated by reference character 97, is indeed shown in Applicant's drawing. Applicant respectfully submits that Fig. 1 shows reference character 105 (directly under the handlebar). Applicant has amended Fig. 2, and corresponding portions of the specification, to designate the clutch actuator by only reference character 22. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the objection to the drawings.

Claims 1, 5, 6, 8, 12, 15, and 16 were objected to for allegedly containing minor informalities. Applicant has canceled claims 1-17 and drafted new claims to correct the minor informalities noted by the Examiner. Accordingly, Applicant respectfully submits that the objection to claims 1, 5, 6, 8, 12, 15, and 16 is moot.

Claims 5-10 and 12 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicant has canceled claims 1-17 and drafted new claims to correct the indefiniteness noted by the Examiner. Accordingly, Applicant respectfully submits that the rejection of claims 5-10 and 12 under 35 U.S.C. § 112, second paragraph, is moot.

Claims 1-3, 6, 7, 11, 15, and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cherry in view of Kondo et al.

Applicant has canceled claims 1-17 and added new claims 18-32.

Claim 18 recites:

A riding vehicle comprising:
an automatic transmission including a clutch actuator and a shift actuator arranged to execute a gear shift change;
a multiplate clutch controlled by the clutch actuator, the multiplate clutch including a bias member arranged to enlarge a clutch partially engaged region of the multiplate clutch by changing a rate of change in which transmission torque is transmitted by the multiplate clutch; wherein
during the gear shift change, both the clutch actuator and the shift actuator are arranged to operate in an overlapping manner. (emphasis added)

With the unique combination and arrangement of features recited in Applicant's claim 18, including the features of "a multiplate clutch controlled by the clutch actuator, the multiplate clutch including a bias member arranged to enlarge a clutch partially engaged region of the multiplate clutch by changing a rate of change in which transmission torque is transmitted by the multiplate clutch," Applicant has been able to provide an automatic transmission for smoothly executing a gear shift change operation by promoting controllability of a clutch and shortening the gear speed change time period by using both a clutch actuator and a shift actuator (see, for example, the fourth full paragraph on page 2 of Applicant's Substitute Specification filed on August 31, 2006).

The Examiner alleged that Cherry teaches all of the features in Applicant's now canceled claim 1 with the exception of a bias member that enlarges a clutch partially engaged region of a clutch. The Examiner alleged that Kondo et al. teaches a bias member 122 that enlarges a clutch partially engaged region of a lock-up clutch 26. The Examiner further alleged that it would have been obvious to provide Cherry with the bias member of Kondo et al. to enlarge a clutch partially engaged region of the clutch "because it does no more than yield predictable results of controlling the clutch engagement since it has been held that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results."

Applicant's new claim 18 recite the features of "a multiplate clutch controlled by

the clutch actuator, the multiplate clutch including a bias member arranged to enlarge a clutch partially engaged region of the multiplate clutch by changing a rate of change in which transmission torque is transmitted by the multiplate clutch.” Support for these features is found, for example, in the paragraph bridging pages 16 and 17, the first full paragraph on page 17, and the second full paragraph on page 23 of Applicant’s Substitute Specification filed on August 31, 2006.

In contrast to Applicant’s claimed invention, Kondo et al. teaches a lock-up clutch 26 which directly couples an input side and an output side of a transmission, i.e., the pump impeller 14p and the turbine runner 14r in the torque converter of Kondo et al. See, for example, column 1, lines 17-28; column 5, lines 11-24; and column 8, line 60 through column 9, line 16 of Kondo et al.

Kondo et al. does not remotely teach or suggest that the lock-up clutch 26 increases a partial clutch engagement region of any other clutch (the Examiner refers to a multiplate clutch, but Kondo et al. does not appear to teach a multiplate clutch) or even that the lock-up clutch 26 itself has a partial clutch engagement region}. Applicant notes that Fig. 6 of Kondo et al. merely refers to engagement and disengagement regions of the lock-up clutch 26, but does not teach or suggest that the lock-up clutch 26 has a partial clutch engagement region, and certainly does not teach or suggest that the lock-up clutch engagement device 122, which the Examiner alleged corresponds to Applicant’s claimed bias member, has the capability to increase a partial clutch engagement region of the lock-up clutch 26.

Thus, the combination of Cherry and Kondo et al. clearly fails to teach or suggest the features of “a multiplate clutch controlled by the clutch actuator, the multiplate clutch including a bias member arranged to enlarge a clutch partially engaged region of the multiplate clutch by changing a rate of change in which transmission torque is transmitted by the multiplate clutch,” as recited in Applicant’s claim 18.

Accordingly, Applicant respectfully submits that any rejection of claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Cherry in view of Kondo et al. would be improper for at least the reasons stated above.

In view of the foregoing amendments and remarks, Applicant respectfully submits that claim 18 is allowable. Claims 19-32 depend upon claim 18, and are therefore allowable for at least the reasons that claim 18 is allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicant petitions the Commissioner for a ONE-month extension of time, extending to October 25, 2010, the period for response to the Office Action dated June 25, 2010.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Dated: October 25, 2010

/Stephen R. Funk #57,751/
Attorneys for Applicant

KEATING & BENNETT, LLP
1800 Alexander Bell Drive, Suite 200
Reston, VA 20191
Telephone: (571) 313-7440
Facsimile: (571) 313-7421

Joseph R. Keating
Registration No. 37,368

Stephen R. Funk
Registration No. 57,751